


**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**



Applicants: Smith et al.

Title: METHOD FOR TREATING FABRICS AND THEIR USE IN  
VEHICLE EQUIPMENT, IN PARTICULAR MOTOR VEHICLE  
EQUIPMENT

Appl. No.: 10/540,949

Filing Date: 1/24/2006

Examiner: Christopher C. Caillouet

Art Unit: 1791

Confirmation No.: 3790

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the New **Pre-Appeal Brief Conference Pilot Program**, announced July 11, 2005, this Pre-Appeal Brief Request is being filed together with a Notice of Appeal. The Final Office Action mailed on July 22, 2009, have been reviewed and the Examiner's comments have been carefully considered. Claims 17-20, 23-24, and 27-38 stand rejected.

**REMARKS**

I. **Rejection of claims 17-24, 27, and 30-38 based on Bauer and Hagenow**

A. **The Claims**

Claims 17-24, 27, and 30-38 are rejected as allegedly being unpatentable over U.S. Patent Application Publication 2001/0010423 ("Bauer") and U.S. Patent 5,632,914 ("Hagenow"). Claims 17, 30, and 35 are independent and each recite a method comprising, among other things, steps of providing a textile surface structure and introducing a plurality of holes into threads of the textile surface structure. These claims specify that the "spacing from hole center to hole center of adjacent holes in the texture surface structure differs from

spacing from thread center to thread center of adjacent threads, and . . . the spacing from hole center to hole center of adjacent holes is 0.6 to 0.75 times the spacing from thread center to thread center of adjacent threads” (hereinafter called “the claimed spacings of claims 17, 30, and 35”). The claimed spacings of claims 17, 30, and 35 increases the likelihood that the textile surface structure will be desirably weakened by ensuring that a large number of successive laser treatments in the thread are not rendered ineffective by coinciding with thread interspaces.

B. Bauer Does Not Teach or Suggest the Claimed Spacings

Bauer does not teach or suggest that the claimed methods including the claimed spacings of claims 17, 30, and 35. In contrast, Bauer merely discloses laser scoring to form a groove in a textile layer 92 (Fig. 13 and paragraph 0094 of Bauer) and to form a series of round perforations 124 in a cover 128 that is not specified to be a textile layer (Fig. 17 and paragraph 0103 of Bauer). Bauer provides no dimensions related to the spacing of the threads relative to the holes that would lead to the claimed spacings of claims 17, 30, and 35. Moreover, Bauer fails to recognize the significance of any relationship between the spacing of the holes and the spacing of the threads.

C. Hagenow Also Does Not Teach or Suggest the Claimed Spacings

Hagenow does not cure the deficiencies of Bauer. Hagenow does not teach or suggest the claimed spacings of claims 17, 30, and 35. Indeed, Hagenow relates to a tear seam in a laminated structure comprising a thin soft elastic plastic skin 26, an intermediate soft plastic foam layer 28, and a rigid plastic retainer or substrate 30. (Column 4, lines 16-32 of Hagenow.) The skin 26 may be formed of a thermoplastic material. (Column 4, lines 33-40 of Hagenow.) The plastic skin 26 of Hagenow is a foil, not a textile.

Because Hagenow does not even teach a textile, (1) it cannot teach the claimed spacings of claims 17, 30, and 35, and (2) it cannot recognize the significance of any relationship between the spacing of holes and the spacing of the threads in a textile surface structure. In other words, neither Bauer nor Hagenow teaches or suggests the claimed spacings of claims 17, 30, and 35 and neither recognizes the significance of such spacings.

Because the plastic skin 26 of Hagenow is a foil, not a textile, one of ordinary skill in the art would not consider the teachings of Hagenow to be transferable to the textile material of Bauer. Indeed, the distance between the holes of Hagenow in any of the configurations

shown in FIGS. 4A-4E of Hagenow will not lead to a reliable weakening of textile. While narrowing the spacing between perforated holes may necessarily lead to weakening of tensile strength in a foil (Hagenow), such narrowing does not necessarily lead to a weakening of the tensile strength in a textile (the present invention). The reason being is that the spacing between the threads of the textile layer relative to the spacing between the perforated holes has a more dominant effect. This consideration is not recognized by Bauer and Hagenow, and this consideration is simply not present when providing perforated holes in the foil layer of Hagenow.

The PTO has asserted that:

Hagenow discloses that the spacing of the holes correlates to the reduced tensile strength of the substrate (column 6, lines 23-30). Therefore, it would have been obvious...to space the holes in accordance with the desired tensile strength of substrate for proper airbag deployment. Depending on the choice of fabric and the thread count/spacing of said fabric during optimization of the spacing of said holes in the substrate, it's expected that the spacing of the holes would fall within the range of 0.6 to 0.75 times the spacing between the threads of the surfaces of some of the textiles, as claimed. *Discovery of optimum value of result effective variable in known process is ordinarily within skill of art. In re Boesch*, CCPA 1980, 617 F.2d 272, 205 USPQ215. (Page 3 of the Office Action)(emphasis in original.)

This rejection, which is based on the supposed discovery of an optimum value of a result-effective variable, is improper. According to MPEP 2144.05, “[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)” In the present case, the PTO has not presented any prior art establishing that the spacing of holes relative to the spacing of the threads were recognized as result-effective variables. The mere assertion that there is a discovery of optimum values of result-effective variables cannot, by itself, support an obviousness rejection when the art relied upon fails to recognize that the spacing from hole center to hole center of adjacent holes in the textile surface structure relative to the spacing from thread center to thread center of adjacent threads are results-effective variables. Thus, the rejection based on the discovery of optimum values is improper.

In apparent rebuttal to the above argument, the PTO has asserted that:

Hagenow discloses that the spacing of the holes correlates to the reduced tensile strength of the substrate. One of ordinary skill will space the holes according to the tensile strength required for the panel to tear cleanly and deploy the airbag. Once the optimized spacing of holes in the substrate is derived, the choice of fabric will determine whether the spacing of the holes is 0.6 to 0.75 times the spacing between the threads of the textile surface. (Page 8 of the office Action.)

It appears that the PTO is stating that the optimization of the spacing of the holes is not for the textile surface structure but for a panel behind the textile surface structure and the spacing of the thread centers of the textile surface structure is not even relevant. The logic appears to be that the spacing of the holes will simply have the claimed relationship with the spacing of thread centers if the “right” fabric is chosen. To put it another way, the claimed spacings in claims 17, 30, and 35 would be inherent if the spacing of the holes was optimized for a panel and the correct fabric to be disposed on the panel is chosen. Such an analysis is improper. MPEP 2112 provides:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic...“To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (Emphasis added.)

Neither Bauer nor Hagenow (individually or in combination) discloses the conditions necessary for one of ordinary skill in the art to be led to the claimed spacings of claims 17, 30, and 35. Indeed, the thread center spacing of claims 17, 30, and 35 is not specified in Bauer so the relationship between the thread center spacing and the hole center spacing cannot be arrived at by the teachings of Bauer and Hagenow. Nothing in these references discloses the set of circumstances that would necessarily result in the claimed spacings of claims 17, 30, and 35.

For at least the reasons stated above, the rejection based on Bauer and Hagenow is improper, and should be withdrawn. Claims 18-20, 23-24, 27, 31-34, and 36-38 depend from claim 17, 30, or 35, and are allowable by virtue of their dependency. Claims 21-22 have been canceled, which renders the rejection of these claims moot. Thus, claims 17-20, 23-24, 27, and 30-38 are allowable.

II. Rejection of claim 28 based on Wu and Bauer

Claim 28 is rejected as allegedly being unpatentable over U.S. Patent 6,254,122 ("Wu") and Bauer. Claim 28 depends from claim 17. As previously mentioned, Bauer and Hagenow does not teach or suggest the claimed spacings of claim 17. The addition of Wu and the removal of Hagenow do not cure these deficiencies because the thread center spacing of claims 17, 30, and 35 is not specified in Wu. Thus, claim 17 and its dependent claim 28 are allowable.

III. Rejection of claim 29 based on Kim and Bauer

Claim 29 is rejected as allegedly being unpatentable over U.S. Patent Application Publication 2002/0047252 ("Kim") and Bauer. Claim 29 depends from claim 17. As previously mentioned, Bauer and Hagenow do not teach or suggest the claimed spacings of claim 17. The addition of Kim and the removal of Hagenow do not cure these deficiencies because the thread center spacing of claims 17, 30, and 35 is not specified in Kim. Thus, claim 17 and its dependent claim 29 are allowable.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

Respectfully submitted,

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